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NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER



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basic imagery interpretation report

Ulan-Ude Airframe Plant 99 (S)

STRATEGIC WEAPONS INDUSTRIAL FACILITIES

USSR

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RCA-09/0018/80
AUGUST 1980
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INSTALLATION OR ACTIVITY NAME				COUNTRY	
Ulan-Ude Airframe Plant 99 Ulan-Ude East Airfield				UR	
UTM COORDINATES	GEOGRAPHIC COORDINATES		CATEGORY	REF NO	COMIREX NO
NA	51-51-23N 107-44-42E 51-51-00N 107-44-04E				
MAP REFERENCE					

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SAC. USATC, Series 200, Sheet 0201-1, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
See "Abstract"	NA

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ABSTRACT

1. (S/D) This report updates four previous NPIC reports—[redacted] on Ulan-Ude Airframe Plant 99, USSR, and satisfies the basic reporting requirement for this target. Activity observed since [redacted] the information cutoff date for the most recent report, through [redacted] the latest date of imagery, is discussed in this report.

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2. (S/D) During this reporting period, 1,698 square meters of usable floorspace was added to the plant, bringing the plant total to 231,361 square meters. An additional 6,727 square meters of floorspace were under construction on [redacted]—5,219 will be directly production related.

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At Ulan-Ude East Airfield, the test and flyaway field for the plant, extensive upgrading of operational facilities was observed, including the construction in a new support area. Continuing construction and production activity at the plant are discussed in this report.

3. (S/D) This report includes a location map, five annotated photographs, two tables of mensural data, and a table listing aircraft observed.

Table 1.
Ulan-Ude Airframe Plant 99 and Ulan-Ude Airfield East
(Items keyed to Figure 2)

This table in its entirety is classified TOP SECRET RUFF

Item	Function	Dimensions			Floorspace (sq m)	Remarks			
		L	W	H					
Airframe Plant 99									
2	Assem bldg								
a	New assem bldg addition				2,555	Ucon			
b	Prob personnel shelter				1,508	Ucon			
c	Final assem hall addition				2,664	Ucon			
14	Shop/support bldg				910	Complete Feb 80			
15	Cooling unit				—	Complete Feb 80			
19	Shop bldg				410	Complete Jan 79			
20	Stor shed				378	Height undet; complete Jan 79			
Airfield East									
16	Maint hangar				629	Max height			
17	Operations bldg				583	Complete Jan 79			
18	POL support bldg				1,439	Complete Mar 80			
	Parking area B								
	Parking area C								
	Parking area C								
	Parking area D								
	Parking area E								
Floorspace on Dec 77					229,663				
Floorspace added since Dec 77					1,698				
Total floorspace on <div></div>					231,361				
Floorspace ucon					6,727				
Projected total floorspace					238,068				

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BASIC DESCRIPTION

4. (S/D) This report updates four previous NPIC reports.¹⁻⁴ The sequence of numbers used in this report is based on that used in the latest report. This report describes continuing construction and production activity at Ulan-Ude Airframe Plant 99 and activity observed at Ulan-Ude East Airfield, the test and flyaway field for the plant (Figure 1). Construction observed at the plant resulted in the addition of 1,698 square meters of floorspace. An additional 6,727 square meters were under construction on []

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Plant Construction

5. (S/D) Initial preparation for an addition (item 2a, Figure 2 and Table 1) to the assembly building was observed on [] This addition, which is 73 by 35 meters, was nearly externally complete on []

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6. (S/D) On [] site preparation for a large, probable underground personnel shelter (item 2b) was begun. This shelter is approximately [] and is immediately behind the new assembly building addition. This shelter appeared to be connected by an underground conduit with several other buildings and other personnel shelters within the assembly area of the plant.

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7. (S/D) On [] initial construction for an addition (item 2c) to the final assembly hall was observed. By [] this addition was in the midstage of construction and will be approximately [] meters when complete.

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8. (S/D) In August 1978, a vehicle/equipment storage shed (item 20) was under construction just west of a hangar adjacent to the helicopter parking area. This storage shed was externally complete by [] A small shop building (item 19) begun in December 1977 was also complete by that date.

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9. (S/D) The first identification of additional construction near the existing assembly building (item 1) was made from imagery acquired on [] this area of construction had been expanded, and two separate areas for new structures could be identified. Vertical stanchions for a small shop/support building (item 14) had been erected by [] By mid-August, it was apparent that the second structure (item 15) was a cooling unit. This cooling unit was connected by conduit with the assembly building. At approximately the midstage of construction of the shop/support building, a small underground personnel shelter was under construction. This shelter also appeared to be connected by conduit to other buildings in the assembly area. The new structures were complete by February 1980, and the cooling unit had been equipped with three horizontally mounted fans.

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10. (S/D) On [] footings for a new maintenance hangar (item 16) were observed on two sides of the walled area adjacent to the helicopter parking area. This building was complete on [] Throughout the inclusive dates (from [] covered by this report, FLOGGER aircraft were seen in the vicinity of this building.

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11. (S/D) On [] two rows of four small, circular excavations were observed in the center of the helicopter parking area A. These rows were approximately 12 meters apart, and each excavation within the row was 3 meters apart. By July 1979, vertical supports had been placed in each excavation. However, no further construction or materials were observed. On imagery of [] only faint outlines of the excavations were observed, and all activity had ceased.

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12. (S/D) Ulan-Ude East Airfield, which serves as the test and flyaway field for the plant, has been upgraded since December 1977. The single, serviceable concrete runway was extended by 794 meters, bringing the overall length of the runway to 2,916 meters. The width of this east-northeast/west-southwest [] azimuth runway remained at 64 meters.

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13. (S/D) The airfield has an almost parallel taxiway which serves the west-southwest portion of the airfield and the southwest area of the plant, one end-connecting link, one crossover link to the secured helicopter parking area A, and a taxiway to a compass rose. On [] earth grading for new hardstands was observed in this west-southwest portion of the airfield. One of the previous circular hardstands had been removed to make room for the four new, rectangular hardstands. These new rectangular hardstands were constructed of precast slab concrete and are 18 by 10 meters. These hardstands were complete by [] Additional grading and construction materials were observed on [] and a probable new crossover taxiway was under construction near these hardstands. On [] grading for eight additional hardstands was observed in the helicopter parking area. These hardstands consist of two precast concrete slabs forming a T shape, which were in place by [] Also, an operations building (item 17) had been constructed by January 1979.

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14. (S/D) On imagery of [] additional grading for an apparent extension to the east-northeast end of the runway was observed. By [] grading activity had intensified, and stacks of paving material were observed throughout this area. By [] some paving blocks were already in place. Additional grading in four other areas was observed and a temporary construction camp—consisting of four large tents, several stacks of construction materials, and two trailers—was also present. The temporary construction camp was expanded until 11 permanent structures had been completed and at least one more was in the early stage of construction. By June 1979, all four areas identified were being paved. Parking areas B and D (Figure 2) were constructed of precast concrete blocks, and parking areas D and E were constructed of reinforced asphalt. A 510-meter taxiway was completed which connects these four parking areas with the runway. Construction in the parking areas was completed by []

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15. (S/D) As of [] the support area for these newly completed parking areas consisted of 11 completed barracks/storage buildings and one inflatable structure. Two other buildings (items 26 and 31, Figure 3 and Table 2) were under construction.

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16. (S/D) A weapons/electronics calibration facility was built north of the extension to the east-northeast end of the runway. This facility was complete by []

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17. (S/D) Ulan-Ude Air Warning Radar Facility [] is approximately 1,390 meters northeast of the east-northeast end of the runway. This site contains four radars—two BAR LOCK, one SIDE NET, and one FLAT FACE.

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18. (S/D) A separately secured ground control approach (GCA) radar site is southeast of the center of the runway. The site contains one LONG TALK GCA radar and one SMALL CROSS very-high-frequency direction-finding radar.

19. (S/D) An RSBN-4N short-range navigation system (Figure 2) is in a separately secured site east-northeast of the east-northeast end of the runway. A separately secured TALL PATH glide path transmitter site is just southeast of the east-northeast end of the runway, and a separately secured THIN PATH precision approach radar site is at the end of the graded-earth overrun at the west-southwest end of the runway.

20. (S/D) Two arresting wire/nets are at the west-southwest end of the runway. These arresting wires/nets were in place prior to []

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Table 2.
New Support Area
Ulan-Ude Airframe Plant 99
(Items keyed to Figure 3)

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Item	Function	Dimensions (m)			Floorspace (sq m)	Remarks
		L	W	H		
21	Barracks/stor				869	Complete Jan 80; total 1,020 sq m
a	Addition				151	
22	Barracks/stor				518	Complete Jan 80
23	Barracks				529	Complete Jan 80
24	Barracks				529	Complete Jan 80
25	Barracks				529	Complete Jan 80
26	Prob barracks				529	Ucon
27	Support/stor bldg				408	Complete Jan 80;
a	Addition				143	total 551 sq m
28	Support/stor bldg				408	Complete Jan 80;
a	Addition				143	total 551 sq m
29	Support stor bldg				252	Complete Jan 80
30	Support stor bldg				252	Complete Jan 80
31	Prob support/stor bldg				252	Ucon
32	Support/stor bldg				252	Complete Jan 80
33	Support/stor bldg				252	Complete Jan 80
34	Inflatable support bldg				434 (approx)	

*Height at eave.

**Height at peak.

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POL Storage Area

21. (S/D) Renewed activity was observed in the POL storage area (Figure 4) on [] [] Activity in this area had remained unchanged since [] when open trenches were observed in this area. On [] six flatcars carrying construction materials were on the rail line at the POL facility. Two medium-sized and several small cylindrical tanks were observed on the ground just off the service rail line. By [] 42 large, four medium, and 12 small POL tanks were observed on the ground in this area. By [] all of the POL tanks were in place. This new POL storage area consists of four rows of ten large tanks each (item A), one row of 12 small tanks (item B), and one row of 13 tanks of three various sizes (items C, D, and E).

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22. (S/D) Construction on a new support building (item 18, Figure 2) in the POL area was observed on [] Vertical stanchions had partially been erected by [] and

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roofing was underway on [] This building was constructed of precast concrete and was almost externally complete on []

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Production Activity

23. (S/D) Ulan-Ude Airframe Plant 99 can be associated with the production of HORMONE (KA-25) helicopters and with HIP C (MI-8) helicopters.¹ The production of HORMONE may possibly be continuing, but the infrequent observations of these helicopters at this plant suggest that the HORMONE are no longer produced, although it may be involved in maintenance/modification. During the period covered by this report (Table 3), not more than one HORMONE was observed on any single coverage of the plant. Four HORMONE crates and four HORMONE component crates were observed on each coverage from [] through [] After that date, HORMONE crates and component crates were observed only infrequently.

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24. (S/D) The HIP helicopters being produced at Ulan-Ude Airframe Plant 99 appeared to be the modified HIP C. These aircraft may have been present as early as March 1978 but could not be confirmed at that time. On [] eight modified HIP C with disruptive painting were in the helicopter parking area A (Figure 5). The modification consisted of the addition of two functionally unidentified pods/boxes/stores, one on each side of the rear portion of the fuselage immediately aft of the engine access panels. These pods/boxes/stores are approximately [] meters. These unidentified pods/boxes/stores may appear to be rectangular because of an unidentified type cover. On some occasions, the mod HIP C appeared to have one [] rail-like appendage on each side. Each rail-like appendage has three pairs of support struts, which extend [] perpendicularly away from the appendage and are parallel with the ground. Each pair of struts is separated by approximately [] and the width of each pair of struts is approximately [] The mod HIP C has also been observed at Kazan Airframe Plant B-387 (BE [] and Blagoyevo Airfield [])

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25. (S/D) FLOGGER engine shipping containers and FLOGGER afterburner shipping containers were observed in the storage area north-northwest of the large maintenance hangar on various coverages during the inclusive dates of this report. FLOGGER engine and afterburner shipping containers had been observed at Ulan-Ude Airframe Plant 99 as early as []

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26. (S/D) FLOGGER aircraft have been observed at various times since the first observance of FLOGGER on [] ten FLOGGER were the most observed at one time. A FLOGGER D with an unidentified missile-like object was observed on [] (Figure 6). This missile-like object extended [] from the leading edge of the left wing glove of the aircraft and was [] wide. The addition of the eight T-shaped hardstands indicated that greater numbers of FLOGGER may appear at this airfield.

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27. (S/D) The presence of a weapons/electronics calibration facility at Ulan-Ude and the large variation in the number of FLOGGER observed suggest that FLOGGER are being fitted with weapons-related electronics at Ulan-Ude. At this time, there is no firm evidence to suggest that FLOGGER are being produced at this plant.

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Top Secret RUFF**Table 3.****Aircraft Observed at Ulan-Ude Airframe Plant 99 and Flyaway Field***This table in its entirety is classified TOP SECRET RUFF*

Date	Helicopter Parking Area A	Hardstand Area	Parking Area B	Parking Area C	Parking Area D	Parking Area E	Other
	9 HIP C	3 HIP					1 HIP in calibration fac
	8 HIP C						
	12 HIP						
	1 HORMONE						
	11 HIP C						
	6 HIP C						
	2 unid						
	6 HIP C						
	7 HIP C						
	6 HIP C	1 HORMONE					
		1 HIP C					
	5 HIP C						
	1 HORMONE						
	1 HIP C	1 HORMONE					
		2 HIP C					
	3 HIP C						
	1 HORMONE						
	2 HIP C	1 HIP C					
	1 HORMONE						
	2 HIP C	3 HIP C					
	1 HORMONE	4 HIP C					
	1 HORMONE	1 HIP C					
		1 HIP E					
	8 HIP C						
	1 HORMONE						
	5 HIP C						
	3 HIP C	1 HORMONE					
		5 prob HIP E					
	5 HIP C						1 HIP C near maint hangar
	1 HORMONE						
	12 HIP C						
	1 HORMONE						
	4 HIP C	1 HIP C					
	1 HORMONE						
	4 HIP C	1 HORMONE					1 HIP C near maint hangar
	2 HIP C	1 HORMONE					
		3 HIP C					
	7 HIP C						
	9 HIP E						
	11 HIP C						
	1 HORMONE						
	9 HIP E	1 HORMONE					
	1 FLOGGER	1 HIP C					
	6 HIP C	1 HORMONE					
		6 HIP E					
	14 HIP C	1 HORMONE					
		2 HIP E (prob)					

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Top Secret RUFF**Table 3. Continued***This table in its entirety is classified TOP SECRET RUFF*

Date	Helicopter Parking Area A	Hardstand Area	Parking Area B	Parking Area C	Parking Area D	Parking Area E	Other
	13 HIP C	1 HORMONE					
	9 HIP C	1 HIP C					
	7 HIP C	1 HORMONE					
		1 HIP C					
		2 HIP E					
	9 HIP C	1 HIP (partial coverage)					
	1 HORMONE						
	11 HIP C	1 HORMONE					
	10 HIP C						
	1 HORMONE (partial coverage)						
	9 HIP C (4 w/o rotors)	4 HIP E (prob)					
	1 HORMONE						
	8 HIP C w/o rotors						
	1 HORMONE						
	9 HIP C (8 w/o rotors)						
	1 HORMONE						
	9 HIP C (8 w/o rotors)	7 HIP E					
	1 HORMONE	1 HIP E on taxiway					
	8 HIP C w/o rotors						1 HIP C w/o rotor near maint hangar
	1 HORMONE						
	8 HIP E/F						
	11 HIP C (10 w/o rotors, 1 w/o tail)						
	1 HORMONE						
	1 FLOGGER D/F inside open-roofed bldg						
	10 HIP C						1 FLOGGER in calibration fac
	1 HORMONE						
	11 HIP C (10 w/o rotors)						
	1 FLOGGER D/F						
	1 HORMONE						
	2 HIP C w/unid stores (mod)						1 FLOGGER at maint hangar
	10 HIP C w/o rotors						
	2 HIP C mod	3 HIP E (prob)					1 HIP C mod at maint hangar
	10 HIP C w/o rotors						
	1 HORMONE						
	2 HIP C mod	2 HIP E (poss)					1 FLOGGER on runway
	10 HIP C w/o rotors	1 HORMONE					
	9 HIP C						3 HIP C w/o rotors incl 1 HIP C w/o tail
	6 HIP C w/o rotors						
	1 HORMONE						
	2 HIP C (mod)	1 HIP C mod					
	10 HIP C w/o rotors	1 HIP C					
	9 HIP C (mod)						
	10 HIP C w/o rotors						
	1 HORMONE						

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Date	Helicopter Parking Area A	Hardstand Area	Parking Area B	Parking Area C	Parking Area D	Parking Area E	Other
	9 HIP C (mod)						
	10 HIP C w/o rotors						
	1 HORMONE						
	1 FLOGGER						
	10 HIP C w/o rotors						10 HIP C—one row of 5 on each edge of the center of the runway
	8 HIP C w/o rotors	6 HIP C mod					3 HIP C mod (prob)
	1 FLOGGER	(prob)					on taxiway in hardstand area
		1 HIP C					
		1 HORMONE					
	8 HIP C w/o rotors	1 HIP C					
	1 HORMONE						
	3 HIP C (mod)	3 HIP C					
	6 HIP C w/o rotors						
	1 FLOGGER						
	1 HORMONE						
	1 CODLING						
	9 HIP C (2 poss mod)						
	6 HIP C w/o rotors						
	1 HORMONE						
	1 CODLING						
	10 HIP C mod (poss)						
	6 HIP C w/o rotors						
	1 HORMONE						
	1 CODLING						
	6 HIP C mod (poss)	1 HIP C					
	6 HIP C w/o rotors						
	1 FLOGGER						
	1 HORMONE						
	1 CODLING						
	6 HIP C w/o rotors	1 HIP C					
	1 FLOGGER (poss)						
	1 HORMONE						
	1 CODLING						
	1 HIP C mod (poss)						
	4 HIP C w/o rotors						
	1 HORMONE						
	1 CODLING						
	3 HIP C Mod	4 HIP C					
	1 HIP C w/o rotor						
	1 HORMONE						
	4 HIP C	2 HIP C					
	1 HIP C w/o rotor						
	1 FLOGGER						
	1 HORMONE						
	1 CODLING						
	12 HIP C						
	1 HIP C w/o rotors						
	1 HORMONE						
	1 CODLING						

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Top Secret RUFF**Table 3. Continued***This table in its entirety is classified TOP SECRET RUFF*

Date	Helicopter Parking Area A	Hardstand Area	Parking Area B	Parking Area C	Parking Area D	Parking Area E	Other
	11 HIP C (prob) 1 HORMONE 1 CODLING						
	12 HIP C (prob) 1 CODLING	1 HORMONE 2 HIP C					
	17 HIP C (prob)	1 HIP C 1 HORMONE					
	17 HIP C (prob) 1 CODLING	1 HORMONE 2 HIP C					
	13 HIP C 1 FLOGGER 1 CODLING	1 HORMONE					
	14 HIP C 1 HORMONE 1 CODLING	1 HIP C					
	11 HIP C 2 FLOGGER 1 CODLING	2 HIP C					1 FLOGGER on taxiway
	12 HIP C 3 FLOGGER 1 CODLING	3 HIP C					
	16 HIP C 4 FLOGGER 1 CODLING	1 HIP C 1 HORMONE					
	13 HIP C 1 HORMONE 1 FLOGGER 1 CODLING	6 HIP C					
	18 HIP C 1 HORMONE 3 FLOGGER	1 HIP C					
	16 HIP C	1 HIP C 2 HIP E/F (prob)					
	21 HIP C 1 HORMONE 1 FLOGGER D/F 1 FLOGGER B/C/E 1 CODLING						
	None (partial coverage)						1 HIP C on runway 1 HIP C near maint hangar
	18 HIP C 1 HORMONE 3 FLOGGER 28 HIP C 3 FLOGGER (1 with unid object) 30 HIP C (1 w/o rotor) 3 FLOGGER 30 HIP C 1 FLOGGER	4 HIP C					

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Top Secret RUFF**Table 3. Continued***This table in its entirety is classified TOP SECRET RUFF*

Date	Helicopter Parking Area A	Hardstand Area	Parking Area B	Parking Area C	Parking Area D	Parking Area E	Other
	26 HIP	2 HIP					
	2 FLOGGER						
	25 HIP C	5 HIP C					
	3 FLOGGER						
	14 HIP C	10 HIP C					
	20 HIP C w/o rotors						
	1 HORMONE						
	2 FLOGGER						
	20 HIP C						
	1 HORMONE						
	1 FLOGGER						
	18 HIP C						
	1 HORMONE						
	1 FLOGGER						
	15 HIP C	1 HIP C					2 HIP C at maint hangar
	1 HORMONE						
	1 CODLING						
	18 HIP C	3 HIP C					
	1 HORMONE						
	1 CODLING						
	19 HIP C	1 HORMONE w/o rotors					
		1 HIP C					
	4 HIP C (partly c/c)	1 HIP C					
	1 FLOGGER (prob)						
	1 CODLING						
	14 HIP C						
	1 HORMONE						
	2 FLOGGER						
	1 CODLING						
	14 HIP C	3 HIP C					
	2 FLOGGER (1 on taxiway)	1 HORMONE					
	1 CODLING						
	18 HIP C	3 HIP C					
	1 FLOGGER	1 HORMONE					
	1 CODLING						
	21 HIP C	1 HORMONE					
	1 FLOGGER						
	1 CODING						
	19 HIP C	1 HORMONE					
	3 FLOGGER						
	18 HIP C	1 HORMONE					
	3 FLOGGER	1 HIP C					
	17 HIP C						1 COKE at ENE end of runway
	5 FLOGGER (1 parked on new hardstand within this area)	3 HIP C					
	25 HIP C (2 poss mods)	4 HIP C 1 HORMONE					
	1 FLOGGER	1 HORMONE					
	1 CODLING						

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Date	Helicopter Parking Area A	Hardstand Area	Parking Area B	Parking Area C	Parking Area D	Parking Area E	Other
	25 HIP C (4 prob mods)	5 HIP (3 prob mod)					2 FLOGGER at maint hangar; 1 HIP C at maint hangar; 1 HOOK at end of runway
	2 FLOGGER	1 HORMONE					
	1 CODLING						
	21 HIP C (2 mods)	6 HIP C (3 mod)					
	6 FLOGGER (3 on hardstand)	1 HORMONE					
	1 CODLING						
	15 HIP C	6 HIP C (1 in flight)					
	4 FLOGGER (3 on hardstand)	1 HORMONE					
	1 CODLING						
	16 HIP C (4 mods)	1 HIP C					2 HIP C near maint hangar; 1 crate at ENE end of runway
	1 FLOGGER	1 HORMONE					
	1 CODLING	1 HORMONE					1 FLOGGER at maint hangar
	12 HIP C	7 HIP (3 mod)					
	2 FLOGGER	1 HORMONE					1 CUB on grass ENE end of runway
	13 HIP C (4 prob mods)		2 CURL				
	1 FLOGGER						
	1 CODLING						
	5 HIP C (1 mod)	1 HIP C	2 CURL				
	1 FLOGGER	1 HORMONE	1 COOT				
	1 CODLING		1 COKE				
	4 HIP C	2 HIP C (1 mod)	1 CUB				
	1 FLOGGER on hardstand	1 HORMONE	1 COOT				
	6 HIP C		1 CUB				
	3 FLOGGER (1 on hardstand)		1 COKE				
	1 CODLING		1 CRUSTY				
	7 HIP C (4 mods)		1 CUB	3 HIP C			1 CAMP on ENE end of runway
	3 FLOGGER (2 on hardstand)		1 COOT				
	1 CODLING		1 CRUSTY				
			1 COKE				
	None (partial coverage)		1 CUB	4 HIP C			
			1 COOT				
			2 CRUSTY				
			1 COKE				
			2 CURL				
	1 HIP C (mod)	8 HIP C (7 mods)	1 CUB	4 HIP C	1 CUB		1 CAMP at ENE end of the runway
	5 FLOGGER (1 on hardstand)	1 HORMONE	1 COOT				
			2 CRUSTY				
			2 COKE				
			2 CURL				
	4 HIP C (mod)	1 HIP C					1 HIP C MOD at maint hangar
	5 FLOGGER (1 on hardstand)	1 HORMONE					
	1 CODLING						
	1 CAMP						

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Top Secret RUFF**Table 3. Continued***This table in its entirety is classified TOP SECRET RUFF*

Date	Helicopter Parking Area A	Hardstand Area	Parking Area B	Parking Area C	Parking Area D	Parking Area E	Other
	8 HIP C						
	6 FLOGGER (3 on hardstand)	1 HORMONE	1 CUB 1 COOT	4 HIP C			
	1 CODLING		1 CRUSTY				
	1 CAMP		2 COKE 1 CURL				
	7 HIP C						
	4 FLOGGER on hardstand		2 CUB 1 CURL	3 HIP C 1 HOPLITE	1 COOT	1 CURL	
	1 CAMP		1 COKE				
	1 CODLING		1 CRUSTY				
	9 HIP C	1 HIP C	2 CUB	4 HIP C		1 CUB	
	3 FLOGGER on hardstand	1 HORMONE	3 COKE/ CURL				
	1 CAMP		1 COOT				
	1 CODLING		2 CRUSTY				
	9 HIP C (2 prob mods)	1 HIP C	1 CUB	4 HIP C		1 CAMP	1 CUB at WSW end of runway
	6 FLOGGER (4 on hardstand)	1 HORMONE	1 COOT				
	1 CODLING		2 CRUSTY				
	1 CAMP		1 COKE 1 CURL				
	10 HIP C	1 HIP C	1 COOT				
	3 FLOGGER (2 on hardstand)	1 HORMONE	3 COKE/ CURL				
	1 CAMP						
	1 CODLING	1 CRUSTY					
	10 HIP C	3 HIP C	2 CUB	4 HIP C			
	3 FLOGGER on hardstand	1 HORMONE	1 COKE				
	1 CAMP	2 CURL					
	1 CODLING	1 CRUSTY					
	3 HIP C (2 mods)	2 HIP C (1 mod)	1 CUB	4 HIP C			
	5 FLOGGER (3 on hardstand)	1 HORMONE	1 COOT 2 COKE	1 HOPLITE			
	1 CAMP		1 CURL				
	1 CODLING		2 CRUSTY				
	5 HIP C (mods)	2 HIP C (1 mod)	1 CUB	4 HIP			
	3 HIP C w/o rotors	1 HORMONE	1 COOT	1 HOPLITE			
	5 FLOGGER (4 on hardstand)		1 COKE 1 CURL				
	1 CAMP		1 CRUSTY				
	1 CODLING						
	8 HIP C (2 mods)	1 HIP C	2 CUB	5 HIP C			
	2 HIP C w/o rotors	1 HORMONE	3 COKE/ CURL	1 HOPLITE			
	6 FLOGGER (4 on hardstand)		1 CRUSTY				
	1 CAMP						
	1 CODLING						

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This table in its entirety is classified TOP SECRET RUFF

Date	Helicopter Parking Area A	Hardstand Area	Parking Area B	Parking Area C	Parking Area D	Parking Area E	Other
	10 HIP C (7 mods)	1 HIP C	2 CUB	5 HIP C			
	5 HIP C w/o rotors	1 HORMONE	1 COOT	2 HOPLITE			
	6 FLOGGER (4 on hardstand)		2 COKE				
	1 CAMP		2 CURL				
	1 CODLING						
	9 HIP C (7 mods)	2 HIP C	2 COKE	5 HIP C		1 HOOK	1 CUB on runway
	4 HIP C w/o rotors	1 HORMONE	2 CURL	2 HOPLITE			
	6 FLOGGER (4 on hardstand)		2 CRUSTY				
	1 CAMP						
	14 HIP C (12 mods)	1 HIP C	1 CUB	4 HIP C			
	2 HIP C w/o rotors	1 HORMONE	1 COOT	2 HOPLITE			
			2 COKE				
			2 CURL				
			2 CRUSTY				
	6 HIP C (3 mods)	9 HIP C	2 CUB	5 HIP C	1 COKE/		1 CUB at WSW
	10 FLOGGER (3 on hardstand)	1 HORMONE	3 COKE/	2 HOPLITE	CURL		
	1 CAMP		CURL				
			2 CRUSTY				
			1 COOT				
	3 HIP C (mods)	4 HIP C (mods)	1 CUB	5 HIP C	1 COKE	1 CAMP	1 HIP C fuselage near maint hangar
	2 HIP C fuselages	1 HIP C	2 COKE	2 HOPLITE			
	4 FLOGGER	1 HORMONE	2 CURL				
			1 COOT				
			1 CRUSTY				
	5 HIP C (mods)	4 HIP C (mods)	2 CUB	5 HIP C		1 CAMP	1 HIP C fuselage near maint hangar
	3 FLOGGER	1 HIP C	1 COOT	2 HOPLITE			
	1 CAMP	1 HORMONE	1 COKE				
			2 CURL				
			2 CRUSTY				
	9 HIP C (mods)	1 HIP C	1 CUB	5 HIP C			
	3 HIP C fuselages	1 HORMONE	1 COOT	2 HOPLITE			
	1 CAMP		2 CRUSTY				
			2 CURL				
			2 COKE				
	9 HIP C (mods)	1 HIP C	1 CUB	5 HIP C			
	3 HIP C fuselages	1 HORMONE	1 COOT	2 HOPLITE			
	1 CAMP		2 CRUSTY				
	1 CODLING		1 CURL				
			1 COKE				
	9 HIP C (mods)	1 HIP C	2 CUB	4 HIP C			
	4 HIP C fuselages	1 HORMONE	2 CRUSTY	2 HOPLITE			
	5 FLOGGER		2 CURL				
	1 CAMP		1 COKE				

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REFERENCES

IMAGERY

(TSR) All applicable KEYHOLE imagery of suitable interpretability acquired from [] was used in the preparation of this report.

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MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet M0201-1HL, 4th ed, scale 1:200,000 (SECRET [])

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1. NPIC. [] RCA-09/0001/78, *Ulan-Ude Airframe Plant 99 (S)*, Jan 78 (TOP SECRET [])
2. NPIC. [] BCA-09/0015/74, *Ulan-Ude Airframe/Plant 99, USSR*, Jan 74 (TOP SECRET [])
3. NPIC. [] BCA-09/0034/71, *Ulan-Ude Airframe Plant 99, USSR*, Apr 71 (TOP SECRET [])
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RELATED DOCUMENT

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REQUIREMENT

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[] Warsaw Pact Forces Division, Imagery Exploitation Group, NPIC, [] or green extension
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